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(54) REFORMER FOR FUEL CELL

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(57) Abstract:

**PURPOSE:** To provide the title reformer so designed that continuous pipes are spirally coiled as well as planarly arranged and located so as to partition a heater from a catalyst bed, thereby enabling heat balance between the respective heats to be delivered to an evaporator and the catalyst bed from the heater.

**CONSTITUTION:** When an evaporator 1 is fed from a feed pipe 6 with a liquid fuel for reaction, this fuel is externally heated by a heater 2 and vaporized in an evaporation part 1a and then superheated at a superheating part 1b. The heater 2 acts so that the fuel fed from its feed source is combusted with air introduced through its inlet 7. The resultant heating gas generated heats the evaporator 1, being passed through the gaps of planarly arranged pipes and rises up through respective heating beds 5a, 5b, 5c. And this gas, while being put to countercurrent to the reaction gas flowing down through catalyst beds 4a, 4b, is subjected to heat exchange and exhausted via an exhaust pipe 12 at the upper part.

